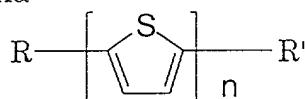


WHAT IS CLAIMED IS:

1. An organic electroluminescent device, which comprises a pair of electrodes, and a layer structure provided between the paired electrodes and including, at 5 least, an emission layer comprising up to 10 mole% of a thiophene oligomer of the following formula



wherein R and R' independently represent H, an alkyl group having from 1 to 10 carbon atoms, , an amino group, an aryl group and n is an integer of 2 to 10.

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2. An organic electroluminescent device according to Claim 1, wherein n is 2 to 7.

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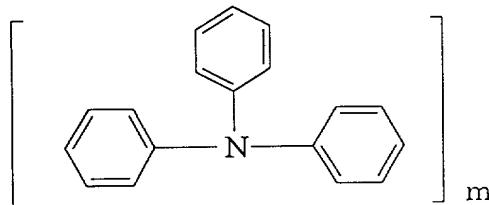
3. An organic electroluminescent device according to Claim 1, wherein the content of said thiophene oligomer ranges from 0.1 to 5 mole%, based on a composition for said emission layer.

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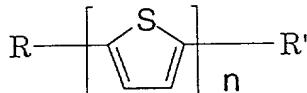
4. An organic electroluminescent device according to Claim 1, wherein said layer structure includes a hole injection layer, a hole transport layer and the emission layer formed on one of the electrodes serving as an anode in this order.

5. An organic electroluminescent device, which comprises a pair of electrodes, and a layer structure provided between the paired electrodes and including an emission layer, a hole injection layer and a hole transport layer wherein at least

one of the hole injection layer and the hole transport layer comprises an oligomer selected from the group consisting of a triphenylamine oligomer of the following formula,



5 wherein m is an integer of 2 to 6, a thiophene oligomer define din Claim 1 and mixtures thereof



wherein R and R' independently represent H, an alkyl group having from 1 to 10 carbon atoms, an amino group, an aryl group and n is an integer of 2 to 10.

10 6. An organic electroluminescent device according to Claim 5, wherein said oligomer is present in an amount of 10 to 90 mole% in the at least one layer.

15 7. An organic electroluminescent device according to Claim 5, wherein said electron injection layer and said electron transport layer are combined into one layer made of a mixture of an electron injection material and an electron transport material.

20 8. An organic electroluminescent device according to Claim 5, wherein said oligomer consists of said triphenylamine oligomer.

9. An organic electroluminescent device according to Claim 5, wherein said oligomer consists of the thiophene oligomer.

10. An organic electroluminescent device according to Claim 5, wherein said 5 oligomer consists of the mixture.

11. An organic electroluminescent device, which comprises a pair of electrodes and a layer structure provided between the paired electrodes and including an emission layer and at least one organic layer in contact with the emission layer 10 wherein the organic layer comprises a fluorescent material having an absorption peak wavelength shorter than a peak wavelength of luminescence emitted from the emission layer.

12. An organic electroluminescent device according to Claim 11, wherein said 15 at least one organic layer includes two organic sub-layers wherein said fluorescent material is present in one of the sub-layers not in contact with the emission layer.

13. An organic electroluminescent device, which comprises a pair of electrodes, 20 and a layer structure sandwiched between the paired electrodes and including an organic layer capable of transporting electrons or holes and an emission layer wherein the organic layer has a charge transport interference sub-layer therein when the organic layer consists of a hole transport layer made of a hole transport material so that the sub-layer is made of an organic material having 25 an ionization potential greater than the hole transport material of the organic

layer, or, wherein the organic layer has a charge transport interference sub-layer therein when the organic layer consists of an electron transport layer made of an electron transport material so that the sub-layer is made of an organic material having an electron affinity smaller than the electron transport

5 material of the organic layer.

14. An organic electroluminescent device comprising a pair of electrodes, and a layer structure sandwiched between the paired electrodes and including a charge transport layer and an emission layer wherein the charge transport layer

10 has a charge transport interference sub-layer therein, and the sub-layer is made of a mixture of both a hole transport material and an electron transport material, an inorganic compound or a metal .

15. An organic electroluminescent device according to Claim 14, wherein said

15 sub-layer is made of the mixture.

16. An organic electroluminescent device according to Claim 15, wherein said mixture consists of a hole transport material and an electron transport material at a ratio by mole of 1: 99 to 99: 1.

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17. An organic electroluminescent device according to Claim 14, wherein said sub-layer is made of an inorganic compound selected from the group consisting of oxides, halides, nitrides, sulfides, hydroxides and mixtures thereof.

18. An organicelectroluminescent device according to Claim 14, wherein said sub-layer is made of a metal.

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